

## ABSTRACT

Embodiments of the invention may reduce timing and spatial distortion in Picosecond Imaging and Circuit Analysis (PICA). In one embodiment, a method of determining distortion in a circuit image comprises: defining potential photon emission areas in the circuit image using a layout database, determining ideal photon emissions over the potential photon emission areas, measuring photon emissions for the potential photon emission areas, comparing the ideal photon emission with the measured photon emissions, and producing a mathematical model that predicts the amount of spatial distortion over the potential photon emission area.